



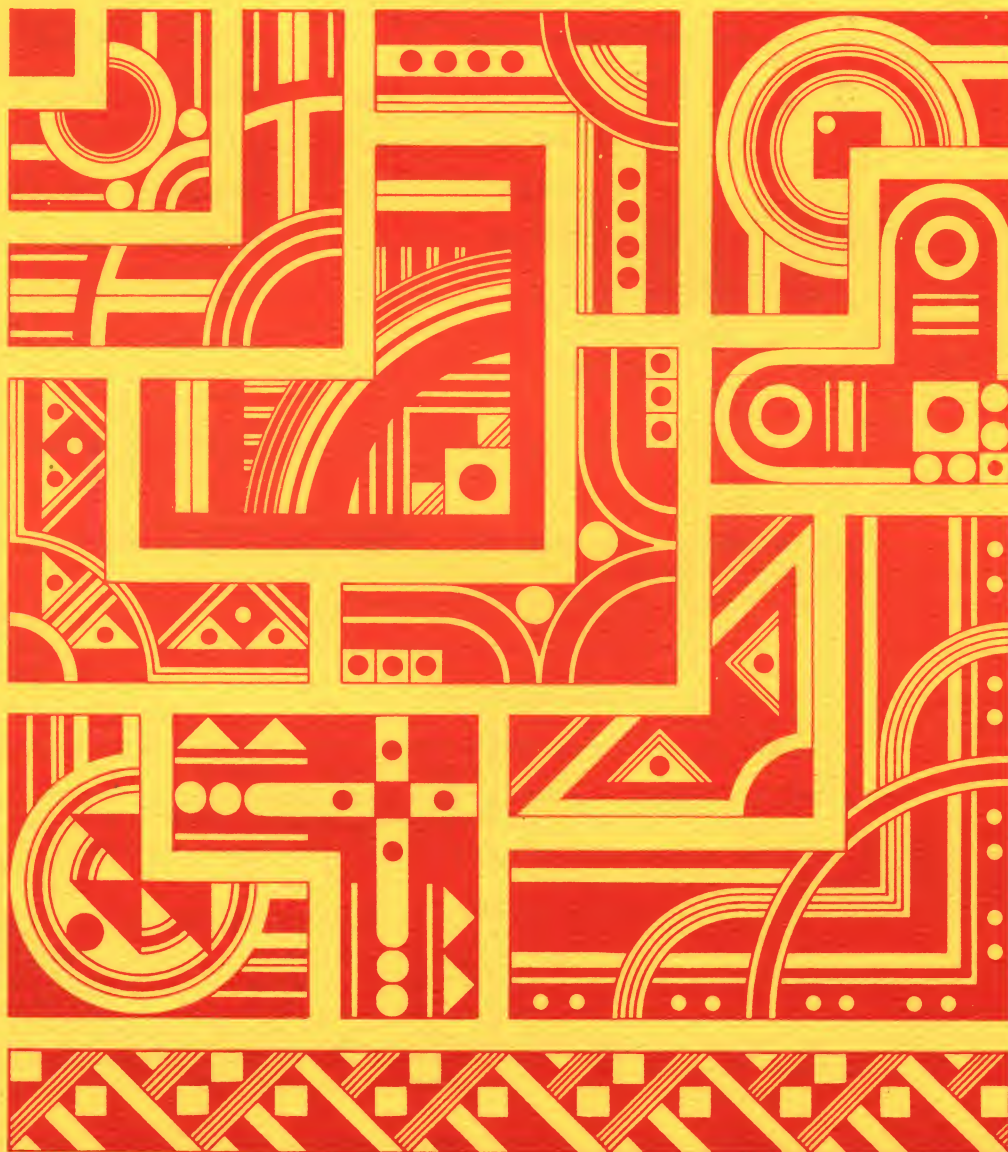
ENERGY

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ENERGY = MC^2 ...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

ISSN: 0740-2759

JULY 1986



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ENERGY (ISSN 0740-2759) is published monthly by the Michigan Computer Consortium, Inc., P.O. Box 1302, East Lansing MI 48823.

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Subscriptions to ENERGY are provided as a benefit of membership in one of the clubs constituting the Consortium. Subscriptions are not otherwise sold, but ENERGY can be purchased over the counter at many greater Lansing area locations. For information about joining one of the clubs, consult the list on page three of this issue, or write to the club in care of the Consortium at the address above.

ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC2) was formed in 1983 to sponsor joint activities involving member clubs. Current members of MC2 are:

AppleLUG (Apple Lansing Users Group)
CCUG (Greater Lansing Color Computer Users Group)
CHAOS (Capitol Hill Atari Owners Society)
M3G (Mid-Michigan Microcomputer Group)
UPCO (Users' Personal Computer Organization)

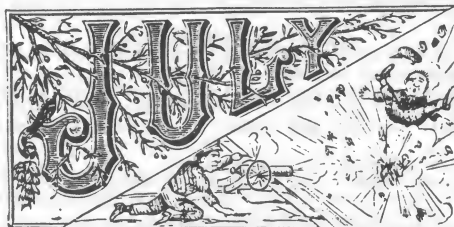
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Joe Werner.....M3G.....337-7415
Gary G. Martin....AppleLUG..394-0115
Skip Osterhus....UPCO.....321-3425
Marvin Goldstein..Treasurer.332-5471



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ADVERTISING

Advertising in ENERGY is an economical way to promote your products or services to well over 500 bona-fide computer users in the Lansing area. Four sizes of ads are available, with discounts for multi-issue contracts. Camera-ready ad copy is needed by the 15th of the month preceding publication. Limited graphics artwork is available at an extra charge. For more information, contact the Editor, listed above.

ARTICLE SUBMISSIONS

We encourage your article submissions. Contact your club's Editorial Board representative. We use compressed mode printer copy, with 3.5 inch columns and 8 lines per inch. Deadline for articles is the 15th of the month preceding publication.

OUR COVER ARTIST

Cover artwork is courtesy of Original Art Deco Designs by William Rowe, Published by Dover Publications.

JUNE 1986
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 1 2 3 4 5 6 7
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 15 16 17 18 19 20 21
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 29 30

CONSORTIUM CALENDAR

JULY 1986

AUGUST 1986
 SU MO TU WE TH FR SA
 1 2
 3 4 5 6 7 8 9
 10 11 12 13 14 15 16
 17 18 19 20 21 22 23
 24 25 26 27 28 29 30
 31

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		M3G EXEC LAMALUG Dominion Day (CAN/LACC)	1 2	3 APPLE EXEC	4 Independence Day	5 CCUG
6	7	8	9	10	11	12
	TI USERS GROUP	HEATH SIG				
13	14	15	16	17	18	19
Bastille Day	M3G ENERGY DEADLINE				CHAOS APPLE LUG	
20	21	22	23	24	25	26
CMTUG	UPCO (IBM PC)					
27	28	29	30	31		
			CP/M SIG			

LANSING AREA COMPUTER CLUBS

- ACM (Association for Computing Machinery)
 Will not meet again until fall. Contact Lew Crippen 377-6636 (days) 371-3179 (evenings); Mary Dike or Walt Davis 377-6636 (days)
- AMIG (Amiga Mutual Interest Group)
 Being formed. Contact Tom Moore, 485-6783.
- Apple LUG (Lansing Users Group) (MC2)
 Meets 3rd Saturday, 9:30 A.M. 102 South Kedzie Hall, MSU, East Lansing. Contact P.O. Box 27144, Lansing, MI 48909; Gary G. Martin 394-0115 after 6pm. Executive Meetings First Thursday, 7:00 pm; Foster Community Center, 200 N Foster, Lansing
- CAPKUG (Capitol Area Kaypro Users Group)
 Will not meet again until fall. Contact C. Stewart, 882-7821.
- CCUG (Greater Lansing Color Computer Users Group) (MC2)
 Meets First Saturday, 1:00 P.M.; East Lansing Public Library, 950 Abbott, E.L. Contact P.O. Box 14114, Lansing, MI 48901; Dale Knepper (president) 626-6917.
- CHAOS (Capitol Hill Atari Owners Society) (MC2)
 Meets 3rd Saturday 10 AM; 118 Physics-Astronomy Bldg., MSU, East Lansing. Contact PO Box 16132, Lansing, MI 48901; Leo Sell (president) 393-7792.
- CHAOS STING (ST Interest Group)
 Meets 2nd Saturday, 10 AM; 118 Physics-Astronomy Bldg.
- CMARC (Central Michigan Amateur Radio Club)
 Meets 1st Friday, 8:00 pm; American Red Cross Bldg., 1800 E. Grand River, Lansing. Contact Bill Hineman NBALL (president) 323-2914.
- Comp Klub of Lansing (TI Users Group)
 Meets 2nd Tuesday, 7:00 pm; River Front Community Bldg, 501 N Cedar St, Lansing. Contact John Hayes 882-7860; Eugene Loyd 394-1494.
- The Commodore Club (of St. Johns)
 Meets Every Tuesday night, 7-10 pm. Contact David Smalldon 224-4678, evenings.
- DECUS GLLUG (DEC Users Greater Lansing Local Users Group)
 Meets Approximately every 2 months at a local DEC user. Contact C. M. Watson (secretary) 483-1111 (days).

DRUG (DEC Rainbow Users Group)

Meets 2nd Saturday, 11:00 am; Institute for Family & Child Study, Home Management House #2, MSU (next to Berkey) Contact Jeffrey Weihi 353-3717 (days) 349-6967 (evenings).

LACC (Lansing Area Commodore Club)

Meets First Wednesday, 7:00 PM; All Saints Episcopal Church, 800 Abbott, E.L. Contact PO Box 1065, East Lansing, MI 48823; Jae Walker (president) 351-7061.

LAMALUG (Lansing Area Mac and Lisa User Group)

Meets monthly; different day in first week; 6 pm dinner; 7 pm meeting; Bonanza, 6727 S. Cedar, Lansing. Contact Dick McCarrick (Computer Consignments), 394-4408; Charles Winters 787-5731.

M3G (Mid-Michigan Microcomputer Group) (MC2)

Meets Third Tuesday, 7:00 PM; Foster Community Center, 200 N Foster, Lansing. Contact PO Box 1302, East Lansing, MI 48823; Warren Wolfe (president) 337-7672. Executive Meetings First Tuesday, 7:30 PM; Beggar's Banquet, 218 Abbott, East Lansing.

M3G CMTUG (Central Mich. TRS-80 Users Group) SIG (MC2)

Meets Third Sunday, 4:00 pm, DeWitt Memorial Building, 206 N. Washington, DeWitt. Contact Lee Hodges 669-3258

M3G CP/M SIG (MC2)

Meets Last Thursday, 7:30 PM; Foster Community Center, 200 N. Foster, Lansing. Contact Tim Childs 321-4072.

M3G Heath/Zenith SIG (MC2)

Meets 2nd Wednesday, 7:30 pm; All Saints Episcopal Church, 800 Abbott, E.L. Contact Tom Trana, 351-8655.

M3G Osborne SIG (MC2)

Meets Last Saturday, 1:00 pm; In a member's home: call for directions. Contact Larry Tirone 484-3921.

MSU MUG (MSU & Capitol Area Macintosh Users Group)

Meets Monthly during MSU school year. Contact John Sykes 332-6720.

U.P.C.O. (Users' Personal Computer Organization--IBM PC group)

Meets 4th Tuesday, 7:30 PM; 223 Natural Resources Bldg., MSU. Contact Skip Osterhus 321-3425.

Clubs designated (MC2) are members of the Michigan Computer Consortium.

This listing is as accurate as the information we receive. To list an event or update information, contact Joe Werner at 337-7415 (evenings), or on the local BBSs BabbieNet or LSJ Access, or via MCI Mail (JWERNER).

Apple LUG	Mailing address: APPLE L.U.G. P. O. Box 27144 Lansing, MI 48909	WHO: An organization of APPLE users in Mid-Michigan area.
	Contact person: Gary Martin	WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program of some topic.
	phone: 517-394-0115 (after 6:00 p.m.)	WHEN: Meetings are held the 3rd Saturday of the month.
		WHERE: Room 102, South Kedzie Hall on the MSU campus. The NW corner of Farm Lane and Auditorium roads.
		EXTRA: Public-Domain library, ENERGY newsletter, tutorials, and special interest groups (SIG's).
		HOW MUCH: Dues are \$12.00 a calendar year or \$1.00/mo prorated.
CCUG	Mailing address: CCUG P. O. Box 14114 Lansing, MI 48901	WHO: An organization devoted to Color computer and MC6809.
	Contact person: Dale Knepper	WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program of some topic.
	phone: 517-626-6917	WHEN: Meetings are 1st Saturday of the month at 1:00 p.m.
		WHERE: East Lansing Public Library, 950 Abbott, East Lansing.
		EXTRA: Public-Domain library, ENERGY newsletter.
		HOW MUCH: Dues are \$12.00 a calendar year or \$6.00 under 18.
M3G	Mailing address: M3G P. O. Box 1032 East Lansing, MI 48823	WHO: Open to general computer interests of all types.
	Contact person: Warren Wolfe	WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program of some topic.
	phone: 517-337-7672	WHEN: Meetings are the 3rd Tuesday of the month at 7:30 p.m.
		WHERE: Foster Community Center, 200 North Foster, Lansing, MI
		EXTRA: Public-Domain library, ENERGY newsletter, and special interest groups (SIG's).
		HOW MUCH: Dues are \$12.00 a calendar year.
UPCO	Mailing address: Skip Osterhus 219 Schooner Lansing, MI 48917	WHO: IBM and compatible owners/users in Mid-Michigan area.
	Contact person: Skip Osterhus	WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program of some topic.
	phone: 517-321-3425	WHEN: Meetings are the 4th Tuesday of the month at 7:30 p.m.
		WHERE: Room 223, Natural Resources building on the MSU campus Farm Lane road.
		EXTRA: Public-Domain/Shareware library, ENERGY, EXCHANGE, and access to club bulletin board.
		HOW MUCH: Dues are \$5.00 per person per year.

THE USER

by

Joe Werner

Many otherwise intelligent and clever people are making their first forays into the field of computers now, and feeling bewildered, foolish, or worse. (It's almost like I feel when I start talking to an accountant.) The world of computers is a strange one for many people, and many of us who inhabit that world don't make it easier for outsiders.

So, if you're in this boat, how do you get started in computers? The first step, and perhaps the hardest, is to define why you want to get started in computers. Is it a hobby? Or is a business use intended? Do you want to make a career of computers? Or do you simply want to use them?

Once this is defined, the next step may be a bit easier. For there are several sources of help, and which ones you might want to tap depend on your intentions. Here is a list of a few useful sources of help, along with some comments about each.

1. Computer societies and user groups are often a good source of knowledgeable people who can help. But such groups are usually filled with computer people talking computer jargon to other computer people. If your intention is to learn all about computers, such a group could be a good choice. But if you're a business person trying to apply a computer to a business problem, user groups and computer societies might be "over your head" and not very useful.

2. Professional societies and professional contacts can be useful. If you're a lawyer, for example, your fellow lawyers may be able to suggest sources for computer solutions. These recommendations can be very helpful, especially if your contacts have done the same thing you are trying to do.

3. Magazines and newsletters, both computer-oriented and professional, can be of great interest. But there is a lot to read, and if you're as overwhelmed by literature as I am, it can be hard to keep up.

4. Computer stores are a good source for information, but you have to keep in mind that they are stores and they exist primarily for selling. They may be able to help you solve a problem, but they'll try to sell you the solution they have, which may not necessarily be the best solution for your problem.

5. VARs, VADs, and OEMs are TLAs (Three Letter Abbreviations) for Value Added Resellers, Value Added Dealers, and Original Equipment Manufacturers. All these are companies that buy someone else's hardware, paste their name on it, and add value (additional hardware, specialized software, support, etc.) to the package and sell it. Often, VARs (and the others) sell to "vertical markets", specialized markets that they can specialize in. You might find one VAR specializing in a management system for small law offices, another specializing in medical billing, etc. When you buy from a VAR, you buy a specialized package. You may pay a premium for the system, but for this you should get good handholding, training, and documentation which talks in your language, not "computerese". Make sure that the VAR is reliable, since you will probably need to deal with the same VAR for the life of your system.

6. Courses and seminars can be good ways to get training. Many are good, but some are quite expensive. Make sure they meet your needs. And make sure that they are worth your investment, both in money and in time.

7. Trade shows can show off the latest in computer systems. Many of the exhibitors at trade shows are specialized vendors, including many VARs. Some of the "gee-whiz" things shown at trade shows can prove to be "vaporware". (You've heard of "hardware" and "software". Well, "vaporware" is nothing more than empty promises.)

8. Finally, and closest to my heart, are consultants. (I am one, after all, and hence a bit prejudiced!) A consultant is a professional who brings his or her experiences in industry and with problem solving to bear on your problems. Expect to pay for the advice of a consultant, often on a time and expenses basis. A bad or inexperienced consultant can waste your money and time. A good consultant can save you more of both than he or she costs. Consultants can help you review where you are, and where you want to be, and can help you make the decisions and take the steps needed to get there.

Jerry Pournelle has stated it quite clearly in Pournelle's Law: "If you don't know what you're doing, deal only with people who do." These are a few suggestions of how to do just that. I hope they help.

M3G

Antiques
By
Ginny Werner

If you were at the computer show in April, you may have wandered by the M3G tables and seen some of the antique computers. I have used some equipment that many of you will never have the opportunity to know and love.

The first terminal I worked on was a Teletype Model 33 with a paper tape reader. It ran at 110 baud (10 characters per second). You typed in your Basic program, ran it, and got a copy of it on the paper tape. The next time you wanted you use your program, you read in the paper tape. For most of the programming I was doing the tapes were small. And you didn't have to worry about magnetic fields or getting it dirty. When it got too old, you just made a new tape. Of course every time you made a program change you had to generate a whole new tape. Joe tells me they still use paper tape (or a tougher "mylar" equivalent) in some industrial applications.

Another method for storing a program that the "younger" generation will probably not run into is punched cards. In this case, you had one card for each line of your program. Each character was represented by holes punched in a column. You used a card punch to generate a deck of cards. I remember we actually had one card punch at school that would print what you had typed across the top of the card. That card punch was always in use. It was quicker to punch the card on another card punch. Then you could use an interpreter to print the contents of the card across the top. (Of course you had to have access to an interpreter - the school didn't have one. Many people got good at reading the patterns of holes in the cards.)

With cards you could just change one line of the program and you still didn't have to worry about magnetic fields. But heaven help you if you dropped your deck! Most people numbered their cards, but they were still a mess to put back in order. Most people also put a diagonal line across the top of the deck so they could tell quickly if any cards were drastically out of order.

A method of input and output that has also mostly disappeared is the front panel - the switches and the blinking lights on the computer. If you knew what you were doing, you could enter, debug, and run a program using only the front panel. You could also get information about the status of the computer from the front panel.

I mostly used a front panel for booting the machine. Basically you would enter an instruction that said here's where the bootstrap* is, go read it and execute it. Obviously the bootstrap is almost always in the same place, so the steps to boot the machine became almost automatic.

In my time at Bell Labs I worked with a number of different terminals. Terminals were too expensive for each person to have one, so there were so many terminals per group. A wise person left the terminal doing something during lunch.

I remember one monstrosity that was blue, weighed about 20 lbs., and printed in blue characters on yellow thermal paper. I seem to remember that it wouldn't print lower case and it didn't have a tab key or a back space key. It worked at 300 baud and had an acoustic coupler built in.

There were other, nicer terminals that I used at Bell Labs, including a TI Silent 700. The one I thought was really nifty was a Teletype Model 43 with a built in modem. You plugged your phone into it and then the terminal into the phone line, just like you would with most modems. The Model 43 took about as much space as a PC does and didn't weigh much less than a PC.

It is interesting to think how far computers have come in such a few short years. In five years, what we're using today will be obsolete. In ten years it will be almost antique. Since there doesn't seem to be much of a market for used computers (they lose their value very rapidly), I wonder if we'll have computer graveyards just like we have auto graveyards.

* Bootstrap - a bootstrap is that set of instructions that loads the first program into memory and tells the computer to start executing it. IBM calls it IPL (initial program load).

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APPLE LUG NEWS

Apple LUG Officers

<i>President:</i> Arie Koelewyn	1382 Red Leaf Lane, East Lansing	332-6988
<i>Vice-President:</i> Jim DeNike	3882 Okemos Rd., Okemos	349-3714
<i>Secretary:</i> Gary G. Martin	822 W. Willoughby Rd., Lansing	394-0115
<i>Treasurer:</i> Dick Ferris	502 W. Columbia St., Mason	676-9507

PROGRAM THIS MONTH

This month we have a videotape that is sure to be of interest to everyone. Last year a lot of people met at a convention in California called APPLEWORLD. There is actually two tapes that contain several presentations and talks that were given at APPLEWORLD. This month we are going to show part of one of these tapes which is about Steve Wozniak talking about Apple's early days and what is keeping him busy now. If time permits we will also show other parts of the tape. Show time will be at 9:30 a.m. at S. Kedzie Hall on the M.S.U. Campus in room 102. The day of the meeting is July 19th. Announcements and general information will be given at the beginning of the meeting.

INCREASING YOUR COMPUTING COMFORT

REPRINTED FROM ACRONYMS 4-86

People working with computers may find they are bothered by glare on their computer monitor screen. This is often caused by light from nearby windows or overhead lighting. Try to avoid undue glare when positioning your computer in your work area.

OVERHEAD LIGHTING

Lower lighting levels are preferable for computer users rather than very bright lights. Lighting slightly dimmer than the fluorescent lighting is achieved by having one of the bulbs removed or turned off. At the same time

dimming lights may make hard copy difficult to read. Task lighting fixtures have become a popular solution to providing different light sources and levels for general work surfaces and terminal areas.

BRIGHTNESS & CONTRAST CONTROLS

The computer display has brightness and contrast controls that can be adjusted. In an office with a window, light coming in at different times of the day will differ in intensity and the user can use the controls to compensate for the glare.

ANTI-GLARE SCREENS

Some computer displays are designed with glare-reducing surfaces. In addition, special anti-glare screens can be attached to the display. Two different types are available: mesh and polarized glass. It is important that such screens do not decrease the intensity or sharpness of the image.

The Office automation has samples of both types of anti-glare screens available for examination. Among the considerations for purchasing an anti-glare screen is the size of your computer display. Some manufacturers have screens in a limited number of sizes.

Kathy Stuut, Office Automation

**WRITING PROGRAMS WITH
A WORD PROCESSOR
REPRINTED FROM OPEN-APPLE
vol.1#4**

The only way to write any but the most simple program is with a word processor. The ability to deal with a program on a larger than line-by-line basis will set your spirit free. In addition, the find and replace feature found in most word processors is extremely useful for determining where in a program certain variables are used and for fixing the inevitable conflicting uses.

For the technique to work, your word processor must be able to save your work as a standard text file. *AppleWriter* and *FreeWriter* do this automatically, *AppleWorks* does not. To create a standard text file with *AppleWorks* pretend you want to print the file; when you are asked where you want to print it select "A text (ASCII) file on disk".

Once you have your program saved, get out of your word processor and into BASIC. Then EXEC your file, and Uncle DOS will type the program in for you.

Your file can include both immediate and deferred commands. (Deferred commands are the ones that begin with a line number, immediate commands stand alone.) I always put an immediate NEW at the beginning of the file, so that if I forgot to clear memory before EXECing it will happen automatically. It's also handy to end the file with a SAVE PROGRAM.NAME (followed by at least one RETURN, more doesn't hurt here), so that the BASIC version of the program will be saved to disk automatically as well.

If you have a program that's already half-written and you want to start using this technique tonight, here's a little EXEC file that will turn BASIC programs into text files. It's a modified version of a program that appears in Apples's DOS programming manuals and works with both DOS 3.3 and ProDOS:

```
0 D$ = CHR$(4):POKE 33,33:INPUT "FILE  
NAME ?":F$:PRINT D$;"OPEN":F$:PRINT
```

```
D$;"CLOSE":F$:PRINT D$;"DELETE":F$:PRINT  
D$;"OPEN":F$:PRINT D$;"WRITE":F$:LIST 1:  
PRINT D$;"CLOSE": F$: TEXT: END  
RUN
```

Type this program in on your word processor and save it. You should only press return three times while creating the file, twice after END and once after RUN. When you have the program saved, get back to BASIC and load your unfinished symphony. Then EXEC the new file after you have finished it.

It will add a complete BASIC program, as line zero, to your program in memory. Then it will run the little one-liner. In response to the "FILE NAME ?" question, give a name for the new text file that will hold your program lines. (Note Carefully: if you have an extra RETURN following the RUN command it will be used as the filename and you'll die of syntax erroritis.)

Once you have your program in a text file, you can load it directly into *AppleWriter* or *FreeWriter*. To get it into *AppleWorks*, don't take the natural route of trying to add a file from disk, but instead select "Make a new file for the Word Processor". Another menu will appear. Select "From a text(ASCII) file" rather than "From scratch", and you'll be ready to edit.

JULY BOARD MEETING

The next Board meeting for the month of July will be July 15th at 7:00p.m. This is a Tuesday. We will be meeting at the Foster Community Center again in room 210. Dress cool as it will probably be warm in there.

SECRETARY NOTES by Gary G. Martin

Several things came up in our last Board meeting that I thought you would be interested in as a member of Apple L.U.G.

First of all we are going to put together a membership directory so that you will have an idea of who is in the club and maybe they live in your area and you never knew them. If you do not wish to have your name included in this directory please let one of the Officers know by the July 19th meeting. As of this time we are not exactly sure what all will be included in this directory.

We are also working on a Hot-Line List that will consist of peoples name and phone numbers that if you have a problem with something you can call them to get some help or ideas with it. Please let one of the Officers know if you can help with this.

Gwen Knowlton will be our representative for the Michigan Computer Consortium meetings. Also I'm sure you have noticed the new size of ENERGY, one of the biggest reasons for this was to help eliminate the high costs of printing the other format. Also we are looking for contributions of graphic pictures for the front cover. It does not have to be of professional quality. If you have kids that like to create pictures on the computer this would be a great source for cover work.

EDUCATION S.I.G.

Chairperson: Judy Haught

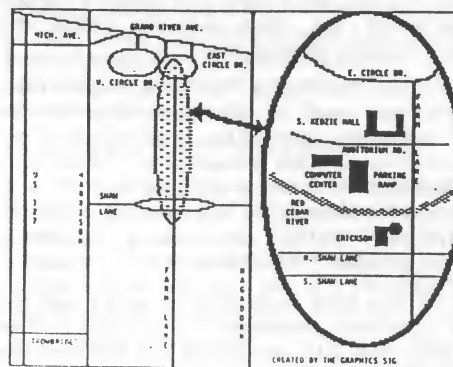
The Education S.I.G. will not be meeting during the summer. The next meeting will be September 27th at 10:00a.m. Normally we meet at the following location :

Computer CoOp
5127 - C Aurelius Rd.
Lansing, MI 48910
(Corner of Aurelius and Jolly)
Ph: 882-3041

We would like to apologize for not having a meeting the last two months. Unexpected circumstances at the last moment caused the cancelation of the meetings.

LIBRARY DISK (LUG #207)

One of our newest disks from the IAC is LUG #207. This is a double sided game nicely done by Albert Lesiuk. It's an arcade style game which requires that you find your way through a maze before you have the privilege of fighting the fire. Several levels of difficulty are available. A joystick is required.



FROM THE EDITOR'S DESK

Thanks for being patient with us when the past few issues of Energy have been late. Now that we've ironed out most of the problems that arose with the change in editors, you should be receiving your copy at the end of each month.

On another subject, I still would appreciate any articles submitted by members of the clubs. We need to get more people involved in the production of Energy. It was suggested by Skip Osterhus that we start a Bulletin Board or possibly a HELP! column. Would you be interested in something like this? Let us know your ideas!

THE ASCII CHARACTER SET

CONTROL CODES				PUNCTUATION & #			CAPITAL LETTERS			LOWER CASE		
CTRL	DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR
@	0	00	NUL	32	20	SPace	64	40	@	96	60	'
A	1	01	SOH	33	21	!	65	41	A	97	61	a
B	2	02	STX	34	22	"	66	42	B	98	62	b
C	3	03	ETX	35	23	#	67	43	C	99	63	c
D	4	04	EOT	36	24	\$	68	44	D	100	64	d
E	5	05	ENQ	37	25	%	69	45	E	101	65	e
F	6	06	ACK	38	26	&	70	46	F	102	66	f
G	7	07	BEL	39	27	'	71	47	G	103	67	g
H	8	08	BS	40	28	(	72	48	H	104	68	h
I	9	09	HT	41	29	)	73	49	I	105	69	i
J	10	0A	LF	42	2A	*	74	4A	J	106	6A	j
K	11	0B	VT	43	2B	+	75	4B	K	107	6B	k
L	12	0C	FF	44	2C	,	76	4C	L	108	6C	l
M	13	0D	CR	45	2D	-	77	4D	M	109	6D	m
N	14	0E	SO	46	2E	.	78	4E	N	110	6E	n
O	15	0F	SI	47	2F	/	79	4F	O	111	6F	o
P	16	10	DLE	48	30	0	80	50	P	112	70	p
Q	17	11	DC1	49	31	1	81	51	Q	113	71	q
R	18	12	DC2	50	32	2	82	52	R	114	72	r
S	19	13	DC3	51	33	3	83	53	S	115	73	s
T	20	14	DC4	52	34	4	84	54	T	116	74	t
U	21	15	NAK	53	35	5	85	55	U	117	75	u
V	22	16	SYN	54	36	6	86	56	V	118	76	v
W	23	17	ETB	55	37	7	87	57	W	119	77	w
X	24	18	CAN	56	38	8	88	58	X	120	78	x
Y	25	19	EM	57	39	9	89	59	Y	121	79	y
Z	26	1A	SUB	58	3A	:	90	5A	Z	122	7A	z
ESC	27	1B	ESC	59	3B	;	91	5B	[	123	7B	{
BKslsh	28	1C	FS	60	3C	<	92	5C	BKslsh	124	7C	:
]	29	1D	GS	61	3D	=	93	5D	]	125	7D	}
^	30	1E	RS	62	3E	>	94	5E	^	126	7E	~
_	31	1F	US	63	3F	?	95	5F	_	127	7F	DEL

NOTE: on the Apple][+ :CTRL shift N = ^ (30) and CTRL shift M =] (29)
but the backslash (28) and underscore _ (31) are not available.

IAC Disk #59 - AppleWorks Spreadsheet Disk

(THIS IS L.U.G. DISK # 209)

This disk contains a number of spreadsheet applications that were written by various San Francisco Apple Core members and donated to public domain. These applications all require that the user have AppleWorks. Each application may be loaded from the disk into the computers memory by using the AppleWorks Menu to place the application on the desktop. All tax applications require some knowledge of tax preparation. Guides provided by the IRS or similar sources should be consulted when these applicaitons are being used. Applications such as those presented on this disk are intended to illustrate the use of the AppleWorks program. Take the time to trace the formulas that make things happen in each application. Each application contains brief notes on how to use it.

ATTEND - A class attendance worksheet.

AWTAXCALC - A worksheet that combines an income worksheet with the Federal Form 1040 and the Schedule A to allow the computation of taxes (1984).

BERNHEIM.BU - Allows the computation of proceeds from investments.

DRS.MED - Used to compute medical expenses for tax purposes.

EXPONREG - An exponential regression worksheet.

KNOX.STOCK - A stock portfolio analysis.

LINREGRESSION - A linear regression.

PEARSONRANK - Pearson Rank analysis.

SCHEDX - A Federal Schedule X worksheet that may be adpted by changing the values in the lookup tables to the values in schedules Y & X.

SELL.BUY.DEMO - Demonstrates sell vs buy decisions.

SPEARMANRANK - A Spearman Rank calculator.

TAXTABLE - This tax table illustrates the use of logic statements, lookup tables and choose functions. Calculations are correct to within a few dollars of the actual tax tables for Federal Returns (1984). It should only be used to check your use of the tables included with the tax forms.

The above applicaitons were written by: J. Conklin, D.Scellato, S. Dinsmore, P. Bernheim, A.W. Liswood, and G. Knox.

The I/O PORT of the Tulsa Computer Society

Reprinted from June I/O Port, Published monthly by Tulsa
Computer Society, Inc.

Commonly Used Extensions For PC File Names

Sandia Computing Newsletter

The microcomputer is truly a "personal" computer. As such, any file names you wish to create for storing your information on your floppy disk are limited only by the number of characters possible and your own creativity. Once you start using commercially-obtained application software, however, some file names, and especially file extensions, have default meanings for those software packages. Although the inclusion of file extensions on file names is optional, certain file extension names are assumed to be a particular type of file by these software packages. Some of you have requested a list of these commonly-used file extension names. The following list is by no means exhaustive, but it can be a helpful guide.

[Editor's note: Some file extensions not in the original list have been added to make this list more up to date, however it is still by no means exhaustive.]

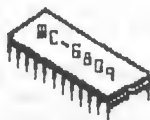
.ARC Archive library of files (use ARC.EXE to extract)
.ASC Standard DOS ASCII data file
.ASM Assembler source file
.BAK Backup copy of another file
.BAS BASIC language source file
.BAT DOS Batch procedure file
.CFG WordMARC configuration file
.CMD dBASE II command program file
.CNF LOTUS configuration file
.COB COBOL language source file
.COD Object-listing file of program code
.COM DOS binary program file
.DAT Data file, usually input to a program
.DBF dBASE II database file
.DIF Data interchange format file
.DLB LOTUS device library
.DOC Document or documentation file
.DRV LOTUS hardware driver parameter file
.DVS DesqView "Learn" scripts
.ENG WordMARC English language prompt file
.EV ExecuVision data file
.EXE DOS binary program file
.FMT dBASE II format file
.FON LOTUS character font definition file

.FOR FORTRAN language source file
.FRM dBASE II report form definition file
.GLY Microsoft WORD glossary file
.HEX Hexadecimal machine code file
.HLP Listable (printable) file of help information
.KEY SuperKey keyboard macro definition file
.LBR Library file (use LUE.COM to extract files)
.LIB Library file of binary programs
.LST Listable (printable) output file
.MAC MACRO assembler source file
.MAP Linker memory map file
.MEM dBASE II memory save file
.NDX dBASE II index file
.OBJ Relocatable object file
.OVL Binary program overlay file
.OVR Binary program overlay file
.PAS Pascal language source file
.PAT MultiMate printer action table
.PIC Graphics encoded picture file
.PRD MicroSoft WORD printer definition file
.PRF IBM Professional Editor profile file
.PRG dBASE II command program file
.PRN Printable (listable) output file
.PRO ProKey keyboard macro definition file
.REL Relocatable object file
.SAT MultiMate sheet feeder action table
.SET VTERM setup parameters file
.SRC WordMARC parameters source file
.STY MicroSoft WORD style definition file
.SYS DOS system parameter file
.TMP Temporary file of any kind
.TOC ExecuVision table of contents
.TUT LOTUS tutorial data file
.TXT Data text file
.UH MultiMate dictionary file
.VC VisiCalc worksheet file
.WKS LOTUS worksheet file
.\$\$\$ DOS temporary file
.?Q? Squeezed file, use NUSQ.COM or USQ2.COM

A NEW AMIGA GROUP

The first meeting of the Amiga Mutual Interest Group (AMIG) will be held Monday, June 30, 1986, at 7:30 pm, at Tom Moore's home, 505 Fulton Place, Lansing, MI 48915. For more information, including the time and place of the next meeting, call Tom Moore at 485-6783. We will attempt to announce future meetings in the ENERGY calendar.

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View from the Front Desk
by Dale Knepper

Most computerists suffer from a common malady...not enough time to spend at the keyboard. It is amazing how quickly one can become a "keyboard nut". One more try for a higher game score turns into ten tries; one more hour with the joystick and X-pad using MCPAINT turns into three hours; and so on.

This common experience happens not only to those in school but to those who have been out of school for decades. Age doesn't matter nor does the amount of education one has. It's fun to see what can be done with one's computer. If a computerist has 16K or the "biggest one on the block" (now at 512K) doesn't matter. It is a way of relaxing and enjoying a few minutes or a few hours.

WANTED: Your ideas and program suggestions for making our CCUG meetings more fruitful for all members. Bring that new program that you like to the next meeting and brag about it. Show the club your new hardware modification. If you would like to see a program demonstrated which you do not have, give me a call. I'll try to arrange it. (Editor's note: Dale's telephone number is 626-6917)

Several CCUG members attended RAINBOWfest in Chicago. Our June and July meetings will likely have discussions about it. Also on our CCUG agenda will be the recent show held at the Clarion Hotel, its results and future possibilities.

////////////////////////////////////

Introduction to Marty's Ramblings

Greg Miller was kind enough to collect several text files written by CoCo-nationally known, Marty Goodman. Marty's "ramblings" are copyrighted. Permission to reprint Marty's spunky words was also secured by Greg. My thanks to both Marty and Greg.

BE WARNED! Marty is... OUTSPOKEN. His views are NOT the views of the GLCCUG. Some individuals may disagree with the content of this and future articles. I will gladly accept responses from our membership for the pages of ENERGY. Please save your text in ASCII on diskette, tape, or upload it via X-modem to Benchboard BBS (517) 394-2447 (8/N/1).

The J&R Banker: An Assessment and a Fix (c) Marty Goodman May 1986

This article will provide a brief assessment of the J&R Banker for those who are curious about that particular brand of 256/512K upgrade for the CoCo. It will also offer a VERY valuable fix for those hackers who already made the mistake of buying one. (Please read the Editor's Intro to "Marty's Ramblings")

Assessment:

Unless you are a hardware and software hacker, familiar with modifying digital hardware projects and conversant in assembly language programming or a professional 6809 software developer who has a real need of a RAM disk to speed compilation of assembly code, C source, or the like, do NOT buy the J&R banker. It is, as supplied, a badly thought out unit. It will cause your CoCo to fail to work with the majority of available quality CoCo software. The Radio Shack DOS RAM disk will not work with most CoCo software either unless implimented as a custom EPROM modified DOS. Between the poor quality of the product and the incompatibilities it causes, I predict an early demise for the J&R company.

The Fixes

Those hardware hackers who have bought the J&R Banker should consider the following fixes....

(1) The CLR bug fix:

This fix will prevent the J&R banker registers from being affected by CLR instructions sometimes used by sloppy programmers when they talk to the SAM. The problem here is that a CLR instruction is both a READ *and* a WRITE instruction, and so a CLR instruction used to set the SAM registers will also inadvertently set the J&R Banker registers, causing many CoCo software programs to simply CRASH on CoCo's with J&R Bankers installed. J&R is to be condemned for releasing a product with such a serious bug.

The fix is relatively simple: select an unused input on U2 (74LS133 address decoder chip) of the J&R Banker. Available pins should be pins 2, 13, 14, and 15. All of these should be tied to Vcc (+5 volts). Note that on the original schematic published in Hot CoCo the Banker had pin 2 of the 74LS133 going to pin 20 (OSC) of the SAM chip. On production versions of the Banker, however, that GOOF was fixed and pin 2 of U2 on the banker is tied high and pin 20 of the SAM is NOT used.

(Part 2 of this article will be in the next issue of ENERGY)



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UPCO

UPCO Notes

by Skip Osterhus

Old business:

May meeting: May 27th, 1986 at 7:30 p.m.
Place: Room 116 of Ag Engineering, MSU campus
Attendance: 50
Door prize: IBM TopView
Winner: David Toombs
Speaker: Dick Janson
Topic: DOM - PC Outline
DOM: Yes - PC Outline
EXCHANGE: No

Please check the mailing label on each issues of ENERGY that you receive. If your address changes and you do not notify us then you might not get your next issue of ENERGY. Keep in mind that your address label is also a reminder of you current membership status. There will be a message on the the label stating 'Renew now' one month before your membership expires and the month it does expire the message will be 'Expired'. It is important to keep your dues current in order to buy club diskettes and have full access to the bulletin board as well!

Please check this column for the exact date and location of the meeting each month. Although the calendar in the front of each issue is correct most of the time, this column is the final word on the subject.

PCjr owners interested in a PCjr SIG may contact Ray Robins at (H) 517-694-1926 or (W) 517-377-9383. If there is enough interest then Ray will schedule a meeting. Please let Ray know of your interest in the PCjr and let's get the SIG of to a good start.

I would like to take this space this month and thank all of the membership for their continuing support of the club. I appreciate each month when you take time to show up at the meetings, and I hope that the presentation is enjoyable enough to make you want to come back each month. As always I welcome feedback on the state of the meetings past and present. You are the club as far as I'm concerned and UPCO will only be as strong as you let it be. Don't forget that you can convey your thoughts to me at each month at the meetings, on the phone (517-321-3425) or through the bulletin board (517-355-6594). I will close by saying "As always I welcome any articles you would like to submit to ENERGY and any other contributions you can think of". See you at the meetings!

New business:

July meeting: July 22th, 1986 at 7:30 p.m.
Place: Room 223 of Natural Resources MSU campus
Attendance: ?
Door prize: Surprise
Winner: ?
Speaker: Graycon representative
Topic: Epson Equity hardware demonstration
DOM: Yes
EXCHANGE: None Expected

*** IMPORTANT ***

Please note that for the summer months of June, July, and August we will be meeting in room 223 of the Natural Resources building on the MSU campus! It is located just south of the Ag Eng building on Farm Lane.

I would like to convey my thanks to Dennis Cullinan for his many years service as editor of our monthly ENERGY magazine. His presence will be missed and I hope that all of our members appreciate his fine contributions to the personal computing community!

I would also like to thank Ms. Erin Sweeney for taking on the the position as ENERGY editor. Erin is a current member of UPCO and as you read this column it will represent her second issue published. Please let Erin know what you think of the 'new' ENERGY if you see her at one of the UPCO meetings.

I hope everybody has been thinking of a replacement for me when I officially retire in September. I know I have been trying to think of someone to 'VOLUNTEER' but so far no luck. Ha! Ha!

Later this year UPCO will probably have its own pre-printed labels to affix to the Disk of the Month (DOM) diskettes that we try and sell at most meetings. I hope you like the labels.

Unofficially the next Computer Show in Lansing like the one we had in May will be October 19th, 1986 at the Clarion. As I said this is unofficial at this time and you should note that this is a different date then I spoke of at the UPCO meetings. It's still on a Sunday.

Does anybody think it would be worthwhile to try and schedule some national speakers at an UPCO meeting or at a joint meeting with another club or two in town? Our highest attended meeting so far was when Mr. John Dickinson spoke to us in August of 85, so I thought we might like to try it again. What do you think? I'll look for your feedback at the meetings or on the board!

"NO ONE IS COMPLAINING"

By

Janet Abramson and Joan Mayor

"I never needed to wear glasses until I started my new job doing word processing." These are the words of a secretary in her early twenties, working in a Lansing office. She went on to say that her company does not have insurance that covers the expense of eye exams or prescription eyeglasses.

Everyone has said that computers are the "lifesaver" for people shifting from traditional factory jobs to the service industries. But until recently, no one paid much attention to the serious health problems from long-term exposure to the glare from a video display terminal (VDT).

In October, a new eye clinic opened at the School of Optometry at the University of California, Berkeley. Dr. James Sheedy, Director of the clinic, says that in the first four days after the clinic opened, 40 patients came in with every kind of symptom from migraines to backaches, all caused by prolonged use of the VDT. He reports that even the new amber colored VDT put out by IBM that is supposed to cure the glare problem once and for all--simply doesn't work. After many hours of staring at any color screen--green, gray, amber or black--people get blurred vision, eyestrain, headaches, and even migraines.


Employers often say that "no one is complaining, so we don't buy any glare-reducing screens." People are complaining! But perhaps they aren't aware that glare-reducing filter screens exist. Companies

such as Abramson-Mayor Research Company of East Lansing, MI (517-351-9311) distribute filter screens, but often find that company executives are waiting for workers to write down a formal request. Many workers are afraid to rock the boat, so they suffer in silence. Meanwhile, their productivity goes down as they take frequent breaks to rest their eyes and ease the strain.

Health problems caused by VDT glare should be considered by unions, workers, and employers. The problem won't go away until somebody starts complaining--loud and clear.

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